

Appl. No. 10/748,734
Amdt. Dated November 16, 2006
Reply to Office Action of August 16, 2006

Attorney Docket No. 88519.0001
Customer No. 26021

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) A transparent electrode made up of ZnO as its main material, wherein its surface is covered with a Mg-doped ZnO film, and wherein the electrode made up of ZnO as its main material is formed on a semiconductor layer, and wherein the semiconductor layer comprises a GaN system semiconductor layer.
- 2-3. (Canceled)
4. (Previously presented) A transparent electrode comprising:
a ZnO layer; and
an Mg-doped ZnO film formed on the ZnO layer,
wherein the ZnO layer is formed on a semiconductor layer, and
wherein the semiconductor layer comprises a GaN system semiconductor layer.
5. (Previously presented) A transparent electrode comprising:
a ZnO layer; and
an Mg-doped ZnO film formed on the ZnO layer,
wherein the ZnO layer is formed on a semiconductor layer, and
wherein the semiconductor layer comprises an n-type GaN system semiconductor layer formed on a substrate, an emission layer formed on the n-type

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GaN system semiconductor layer, and a p-type GaN system semiconductor layer formed on the emission layer.

6. (Previously presented) The transparent electrode of Claim 4, wherein the Mg-doped ZnO film overlies an upper surface of the ZnO layer.

7. (Canceled)

8. (Previously presented) The transparent electrode of Claim 4, wherein a first metal pattern is formed on the Mg-doped ZnO film.

9. (Previously presented) The transparent electrode of Claim 4, wherein a second metal pattern is formed on the semiconductor layer.

10. (Previously presented) The transparent electrode of Claim 4, wherein the Mg-doped ZnO film improves acid resistance of the transparent electrode.

11. (Previously presented) The transparent electrode of Claim 4, wherein the semiconductor layer is formed on a substrate.

12. (Canceled)

13. (Previously presented) A light emitting device comprising:

a semiconductor layer formed on a substrate;

a ZnO transparent electrode formed on the semiconductor layer; and

an Mg-doped ZnO film formed on the ZnO transparent electrode,

wherein the semiconductor layer comprises a GaN system semiconductor layer.

14. (Previously presented) A light emitting device comprising:

a semiconductor layer formed on a substrate;

a ZnO transparent electrode formed on the semiconductor layer; and

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an Mg-doped ZnO film formed on the ZnO transparent electrode,
wherein the semiconductor layer comprises an n-type GaN system
semiconductor layer formed on the substrate, an emission layer formed on the n-
type GaN system semiconductor layer, and a p-type GaN system semiconductor
layer formed on the emission layer.

15. (Previously presented) The light emitting device of Claim 13, wherein
the Mg-doped ZnO film overlies an upper surface of the ZnO transparent electrode
formed on the semiconductor layer.

16. (Canceled)

17. (Previously presented) The light emitting device of Claim 13, wherein a
first metal pattern is formed on the Mg-doped ZnO film.

18. (Previously presented) The light emitting device of Claim 13, wherein a
second metal pattern is formed on the semiconductor layer.

19. (Previously presented) The light emitting device of Claim 13, wherein
the Mg-doped ZnO film improves acid resistance of the light emitting device.

20-25. (Canceled)